



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/541,327	06/30/2005	Haruhiko Shimizu	108421-00122	1226
4372	7590	07/10/2006	EXAMINER	
ARENT FOX PLLC 1050 CONNECTICUT AVENUE, N.W. SUITE 400 WASHINGTON, DC 20036			NGUYEN, HANH N	
			ART UNIT	PAPER NUMBER
			2834	

DATE MAILED: 07/10/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/541,327	SHIMIZU ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Nguyen N. Hanh	2834	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-6 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-6 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 30 June 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                        | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)               | Paper No(s)/Mail Date. ____.  |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date ____.  | 6) <input type="checkbox"/> Other: ____.                                    |

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

1. Claims 1-4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chiaki (JP 55-086361) in view of Takahashi et al.

Regarding claim 1, Chiaki discloses a rotor for a permanent magnet type motor, comprising: a rotor yoke (6 in Fig. 3); a permanent magnet (4) connected on a surface of the rotor yoke; and a metal film (5, 7) which is disposed between the rotor yoke and the permanent magnet, wherein the rotor yoke and the permanent magnet are subjected to welding (Abstract). Chiaki fails to show the method of welding is beam welding.

However, Takahashi et al. disclose a motor structure wherein the ends of the conductors are welded by means of TIG welding, brazing, resistance welding, electron beam welding, laser welding or soldering for the purpose of providing an improved method of manufacturing (Col. 1, lines 65-66).

Since Chiaki and Takahashi et al. are in the same field of endeavor, the purpose disclosed by Takahashi would have been recognized in the pertinent art of Chiaki.

It would have been obvious at the time the invention was made to a person having an ordinary skill in the art to modify Chiaki by using beam welding method as

taught by Takahashi et al. for the purpose of providing an improved method of manufacturing.

Regarding claim 2, Chiaki also discloses a rotor for a permanent magnet type motor wherein the metal film (5) is formed on a surface of the permanent magnet (4).

Regarding claim 3, Chiaki discloses the claimed invention except for showing a rotor for a permanent magnet type motor wherein the metal film has a thickness of 25 to 90  $\mu\text{m}$ . It would have been obvious to one having ordinary skill in the art at the time the invention was made to use a metal film with a thickness of 25 to 90  $\mu\text{m}$ , since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. In re Aller, 105 USPQ 233.

Regarding claim 4, Chiaki also discloses a rotor for a permanent magnet type motor wherein the metal film (5) contains at least one of nickel and Copper (Abstract).

2. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Chiaki (JP 55-086361) in view of Takahashi et al. and further in view of Emoto.

Regarding claim 5, Chiaki and Takahashi et al. disclose the invention except for showing the rotor for a permanent magnet type motor wherein the metal film has a nickel film composed of nickel.

However, Emoto discloses a motor structure wherein the metal film has a nickel film composed of nickel (Col. 5, lines 15-20) for the purpose of preventing adversely effect of a magnetic circuit.

Since Chiaki, Takahashi et al. and Emoto are in the same field of endeavor, the purpose disclosed by Emoto would have been recognized in the pertinent art of Chiaki and Takahashi et al.

It would have been obvious at the time the invention was made to a person having an ordinary skill in the art to modify Chiaki and Takahashi et al. by using the metal film has a nickel film composed of nickel as taught by Emoto for the purpose of preventing adversely effect of a magnetic circuit.

3. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Chiaki (JP 55-086361) in view of Takahashi et al. and further in view of Torok.

Regarding claim 5, Chiaki and Takahashi et al. disclose the invention except for showing the rotor for a permanent magnet type motor wherein the rotor yoke has a stacked structure.

However, Torok discloses a motor structure wherein the rotor yoke has a stacked structure (Fig. 2) for the purpose of improving motor efficiency.

Since Chiaki, Takahashi et al. and Torok are in the same field of endeavor, the purpose disclosed by Torok would have been recognized in the pertinent art of Chiaki and Takahashi et al.

It would have been obvious at the time the invention was made to a person having an ordinary skill in the art to modify Chiaki and Takahashi et al. by using the rotor yoke has a stacked structure as taught by Torok for the purpose of improving motor efficiency.

### ***Conclusion***

Art Unit: 2834

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hanh N Nguyen whose telephone number is (571) 272-2031. The examiner can normally be reached on Monday through Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Darren Schuberg, can be reached on (571) 272-2044. The fax phone numbers for the organization where this application or proceeding is assigned are (571) 273-8300 for regular communications and (571) 273-8300 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-1782.

HNN

June 20, 2006

  
DARREN SCHUBERG  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2600